POLARIZING PLATE AND PLASTIC OPTICAL ARTICLE

ABSTRACT

A plastic optical article manufactured by an insert injection molding process comprises an injected thermoplastic base and a polarizing plate comprising a polarizing film, a thermoplastic support layer bonded to one surface of the polarizing film, and a thermoplastic protective layer bonded to the other surface of the polarizing film. The thermoplastic support layer is constructed from the same or similar material as the thermoplastic base. The thermoplastic protective layer is constructed from a resin sheet having an optical retardance of less than 200 nm in order to minimize the reduction of polarization efficiency by a birefringent material. The plastic optical article does not show interference fringe colors of polarized light if the protective layer faces the polarized light source. The polarizing plate is useful for manufacturing polarized eyewear articles, such as polarized sunscreens and goggles.